

# Picture of Hand Washing Behavior with Soap (CTPS) of Students of SDN 029 Botto, Campalagian District

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**Abstract.** *Washing hands with soap (CTPS) is one of the sanitation actions by cleaning hands and fingers using water and soap so that they are clean. Washing hands with soap is the process of mechanically removing dirt and dust from the skin of both hands using water and soap, washing hands with soap is a simple, easy, and useful way to prevent various diseases that cause death, which can be prevented by washing hands properly, such as diarrhea and ARI which are often the cause of death in children. Behavior is a biological manifestation of individuals in interactive activities with their environment, both in the form of visible and invisible behavior. can be felt to those that cannot be felt. The purpose of the study was to determine the description of hand washing behavior with soap (ctps) in students of SDN 029 Botto Village, Campalagian District. The method used in this study is a qualitative research method by interviewing informants to explore information, informants' attitudes in behaving hand washing with soap (CTPS) in students of SDN 029 Botto, Campalagian District, using 10 informants consisting of fifth and sixth grade students. The conclusion of this study is that students' behavior regarding washing hands with soap is good but not yet optimal and needs to be improved again to achieve a level of health. Therefore, it is necessary to improve the implementation of PHBS, especially washing hands with soap and the completeness of CTPS facilities at SDN 029 Botto school.*

**Keywords:** *CTPS, Washing Behavior, Sanitation*

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## INTRODUCTION

One of the efforts towards healthy behavior is through a program known as the Clean and Healthy Living Behavior (PHBS) program which is implemented systematically and coordinated. The Clean and Healthy Living Behavior (PHBS) program is a form of manifestation to provide learning experiences or create conducive conditions for individuals, families, groups and communities to improve knowledge, attitudes and behaviors in order to implement healthy living methods in order to maintain, preserve and improve health (Samrah et al., 2021).

Health is the most important factor in human life. Health development is an integral part of national development (Rudnicka et al., 2020). Health development is an effort by all components of the nation to increase awareness, willingness, and ability to live healthily for

everyone in order to achieve an optimal level of public health (Khorram et al., 2024). Cleanliness is a condition that is free from dirt, including dust, garbage and odor (Dailiati et al., 2020). The problem of cleanliness in Indonesia has always been a growing polemic, where cases related to cleanliness problems increase every year (Simandjuntak, 2021). Cleanliness is the key to health. Humans need to maintain personal hygiene so that the body is healthy, Universitas Muhammadiyah Palembang spreads dirt and does not transmit disease, either to themselves or to others (Finlay et al., 2021). Personal hygiene is a process of defense and maintenance of cleanliness and health of the body Guntur (2021). Steps in maintaining cleanliness and health include regular bathing, maintaining neatness, brushing and caring for teeth, changing clothes regularly and washing hands (Raziq et al., 2024).

## METHODS

This type of research uses a Qualitative research type. With a descriptive research design, descriptive research is a research method carried out with the main aim of creating a picture or description of a situation objectively to find out the attitude of informants in behaving like washing hands with soap (CTPS) in students of SDN 029 Botto, Campalagian District. The study involved 10 informants, comprising students from various grade levels (1st to 6th grade). The students were selected based on their availability and willingness to participate. The total number of students at the school in 2022 was 179, with a distribution across grades as follows: 28 students in grade I, 30 in grade II, 29 in grade III, 34 in grade IV, 34 in grade V, and 24 in grade VI. Observations were conducted in the school environment to assess the availability of hand washing facilities and how students practice hand washing during their school day. This was done at multiple times during the day to observe the consistency of behaviors. Semi-structured interviews were conducted with 10 students from different grades to gather insights into their understanding and practice of hand washing with soap. The questions focused on: Whether they knew the steps for proper hand washing with soap. Their daily practices of hand washing, and whether they were aware of the benefits of washing hands with soap. Their knowledge about when to wash hands (e.g., before eating, after using the toilet). The data obtained from observations and interviews were transcribed, coded, and analyzed to identify common themes and patterns related to hand washing practices and knowledge. These findings were then categorized into themes such as "knowledge of hand washing steps," "actual behavior," and "availability of facilities."

## RESULT AND DISCUSSION

Campalagian District. In 2022, students of State Elementary School 029, Botto Village Botto Di Bangun has 179 students. With details of 28 students in grade I, 30 students in grade II, 29 students in grade III, 34 students in grade IV, 34 students in grade V, and 24 students in grade VI. This school has 7 classrooms, 1 principal's room, 1 teacher's room, 1 library room, 1 UKS (School Health Unit) room, and 5 bathrooms/toilets.

### ***Implementation of hand washing practice with soap at SDN 029 Botto***

Observations and interviews on the implementation of hand washing practices were conducted to determine students' behavior or skills in washing hands with soap in six steps. From the interview results, the following results were obtained: 4 students did not know what was meant by washing hands with soap and what its benefits were. And how students practice how to wash hands properly. It is known that all informants practice how to wash hands according to what is done every day where this behavior is not optimal enough and does not comply with the procedures for implementing the 6 steps of washing hands properly based on WHO provisions. Here are some evidence quotes from the main informants of the study as follows:

*"I don't know, bro. The way to wash your hands is to wash them with water until they're clean like this, then use soap, then wash them again, then that's it, noodles, hehe." (IU5, 5th Grade Student)*

"I don't know, if it's me, I just wash it until it's clean and then I'm done with noodles haha. (IU7, 6th Grade Student)

*"Washing hands before eating and after eating, the way to wash hands is like this, wash hands, take soap, then do this, what is it called, rub until clean, then wash again until clean. (IU10, Grade 6 Student)*

The statement above can be concluded that how to wash hands using soap is not yet understood by some students, this shows a lack of knowledge and provision of socialization to children regarding the importance of washing hands after activities. Here are some quotes from informants:

*"Wash your hands to prevent disease, wash your hands before eating and after eating. How to wash your hands is to rub them until clean with soap. (IU 4 class 5)*

The results show that the hand washing practice of students at SDN 029 Botto is in the poor category and has not been implemented properly, namely based on the statements of informants who explained and practiced hand washing which was still very lacking and not in accordance with the WHO provisions of the six steps of washing hands with soap.

### **Hand washing facilities at SDN 029 Botto school**

Hands are the main carriers of germs, therefore proper hand washing is an effective healthy behavior to prevent the spread of various infectious diseases such as diarrhea and ARI and others. Diarrhea and ARI are the most common diseases in school-age children. (Hayatun Nufus, 2017). Based on the observation results, the ownership of hand washing facilities with soap in SDN 029 Botto is still relatively low. Based on the observation, it is known that there are 3 places to wash hands in the form of water taps that are not equipped with washbasins, not equipped with soap, and posters on how to wash hands properly.

### **Implementation of hand washing practice with soap at SDN 029 Botto**

The results of the study showed that students' behavior in practicing hand washing with soap is still very lacking. This is evidenced by the results of interviews with informants who washed their hands incorrectly and their understanding of hand washing with soap is still lacking so that students do not wash their hands with soap correctly but rather use a quick, practical and unclean way of washing their hands. Washing your hands with soap in clean water is a form of preventing the transmission of various viruses and diseases, especially the Covid-19 virus, which is still ongoing today. According to Park et al. (2023), behavior is formed through a certain process and takes place through human interaction with the environment. Factors that play a role in shaping behavior are: internal factors in the form of intelligence, achievement, motivation, emotions, and so on. Then external factors, including objects, people, groups and others (Brown, 2023).

From the research results, it is known that 4 informants have very little knowledge, 6 informants have sufficient knowledge out of 10 informants in this study (Muellmann et al., 2021; Solarino & Aguinis, 2021). This has an impact on the lack of socialization and a forum for learning how to wash hands in the form of posters displayed in every hand washing place. The low behavior of Washing Hands with Soap (CTPS) and the high level of effectiveness in preventing the transmission of disease, it is very necessary to have efforts to prevent the transmission of diseases that often occur in school children, namely diarrhea and ARI (Wiharto et al., 2023). through health promotion with the theme of washing hands

The correct way to wash your hands with soap is to rub your palms together, rub the backs of both hands, interlace your palms and rub them together, interlock your fingers between your palms in opposite directions and use a locking technique, rub your thumbs in a circular motion, then alternately rub the area between your index finger and thumb (Ijaz, et al., 2020). Rub both wrists in a circular motion, rinse with water and dry. Remember, the most important thing in washing hands is not how long it takes, but the correct way or technique of washing hands

(Burhanuddin, 2022). With good behavior, it is expected that students will be able to protect themselves from infectious diseases (Ghai, 2020). One of the factors that influences student behavior is their low level of knowledge (Hatabu et al., 2020). The way to improve handwashing behavior with CTPS soap in schools requires efforts to increase student knowledge about the importance of CTPS and the availability of good handwashing facilities (Sari et al., 2024).

Hand washing behavior includes behavior related to a person's efforts or activities to maintain and improve their health or a healthy lifestyle (Glowicz et al., 2023). Hand washing is the process of mechanically removing dirt and dust from the skin of both hands using soap and water. Hand health and hygiene significantly reduce the number of disease-causing microorganisms on both hands and arms and minimize cross-contamination (Nicolaidis et al., 2020). Health behavior is a person's (organism's) response to stimuli or objects related to illness or disease, health care systems, eating and drinking, and the environment. Health behavior can be grouped into 3 groups, namely: Health-maintaining behavior, Treatment seeking behavior and Behavior towards the environment.

Global Handwashing Day (HCTPS) was established on October 15 in conjunction with the designation of 2008 as the International Year of Sanitation by the UN General Assembly. Global Handwashing Day (HCTPS) is expected to improve general health practices and health behaviors in general. In a study conducted by Ezezika et al. (2023), it was found that the public agreed that washing hands with soap is beneficial for maintaining health and preventing disease. However, most people only know the important time to wash hands with soap is before and after eating, and only one person said they should wash their hands with soap after defecating. This proves that public knowledge about washing hands with soap is still lacking and needs to be improved immediately. Didier et al. (2021) stated that washing hands with soap can be done at the following times: before preparing food, before and after eating, after urinating and defecating, after throwing away or handling garbage, then after playing/feeding/holding animals, and after coughing or sneezing on our hands. Washing hands with soap and water can more effectively remove dirt and dust mechanically from the surface of the skin and significantly reduce the number of disease-causing microorganisms such as viruses, bacteria and other parasites on both hands.

The habit of washing hands using water alone cannot protect each individual from bacteria and viruses on the hands (Przekwas & Chen, 2020). Moreover, if washing hands is not under running water. Moreover, the habit of using and sharing hand washing containers is the same as sharing germs and still allowing germs to stick to the hands (Teasing et al., 2020). This habit must be abandoned and changed to a better one with standard procedures for washing hands using soap (Hussam et al., 2022).

### **Hand washing facilities at school**

Based on the results of the study, it is known that SDN 029 Botto school provides 3 places to wash hands in the form of water taps, not equipped with washbasins, not equipped with soap and posters on how to wash hands properly as a learning medium for children. The results of the study showed that the facilities available at the school were inadequate. Assessment of the availability of facilities includes the availability of a place to wash hands, the availability of clean running water, the availability of soap as a disinfectant, the availability of clean cloths to dry hands. In addition to the availability of hand washing facilities, what needs to be considered is the method of washing hands properly and correctly. If hand washing facilities with soap are available but the hand washing method is still not good, then the objectives of CTPS will not be achieved. For this reason, it is necessary to improve knowledge and skills about CTPS for all students and teachers as supervisors.

Factors that influence handwashing behavior in elementary school include facilities for carrying out handwashing actions, children about the importance of washing hands. Before children behave in washing their hands, children must first know how to wash their hands, for example, clean water, soap, and dry tissues so that students become accustomed to washing their

hands with soap after carrying out various activities at school. Hand washing facilities are one form of personal hygiene efforts for students that emphasize efforts to provide hand washing facilities to get used to washing hands before and after consuming food and after playing. The main element in providing hand washing facilities is the availability of clean running water and meets physical requirements, namely running water. The availability of soap as a disinfectant needed to kill disease-causing bacteria on human hands along with cloths/tissues as hand dryers.

The role of schools as institutions that help the family environment, then schools are tasked with educating and teaching as well as improving and refining the behavior of students brought from their families. It can be clearly said that most of the formation of intelligence (understanding), attitudes and interests as part of personality formation, is carried out by schools. Washing hands aims to remove or kill pathogenic microorganisms (germs). Use of water alone in washing hands is not effective in cleaning the skin because water is proven to be unable to remove oil, fat and protein where these substances are part of organic dirt (Montero et al., 2022). Access to clean water and sanitation is an important basis for the lives of children around the world in terms of health and survival, the provision of clean water and good sanitation behavior in schools is also one way to achieve the goal.

## CONCLUSION

Based on results research that has been done so researcher take conclusion that Need increase knowledge school students and teachers through counseling so that CTPS behavior becomes A inherent behavior in children school. Prepare facility as well as regulation school become infrastructure in create change behavior. In study This knowledge Respondent in study This about behavior wash hand use soap at SDN 029 Botto in the village campalagian Enough Good However Still There is some indicators that have not been understood with good and step wash good and proper hands Still Not yet in accordance with provision WHO, Hal This proven with results interview behavior wash hand with method Only rub palm hands and back hand use soap with method wash hand everyday. Behavior students of SDN 029 Botto about wash hand use soap (ctps) at school especially during the pandemic based on from results observation and interview Already Enough Good However No in a way maximum.

## REFERENCES

- Brown, J. S. (2023). *Motivation of Behavior: Motivation of Behavior by Brown, Judson Seise: Understanding the Driving Forces of Human Actions*. Prabhat Prakashan.
- Burhanuddin, S. (2022). The Influence Of Learning In Using Educational Video And CTPS Gymnastic Learning (Covid-19) On Hand Washing Implementation By Using Soap Under Flowing Water. *COMPETITOR Jurnal Pendidikan Kepeleatihan Olahraga*, 14(1), 69-81.
- Dailiati, S., Irawati, I., & Marlinda, P. (2020, April). Environmental cleaning control policy: analyzing cleanliness and gardening control in pekanbaru, Indonesia. In *IOP Conference Series: Earth and Environmental Science* (Vol. 469, No. 1, p. 012112). IOP Publishing.
- Didier, P., Nguyen-The, C., Martens, L., Foden, M., Dumitrascu, L., Mihalache, A. O., ... & Maitre, I. (2021). Washing hands and risk of cross-contamination during chicken preparation among domestic practitioners in five European countries. *Food Control*, 127, 108062. <https://doi.org/10.1016/j.foodcont.2021.108062>
- Ezezika, O., Heng, J., Fatima, K., Mohamed, A., & Barrett, K. (2023). What are the barriers and facilitators to community handwashing with water and soap? A systematic review. *PLOS Global Public Health*, 3(4), e0001720. <https://doi.org/10.1371/journal.pgph.0001720>
- Finlay, B. B., Amato, K. R., Azad, M., Blaser, M. J., Bosch, T. C., Chu, H., ... & Giles-Vernick, T. (2021). The hygiene hypothesis, the COVID pandemic, and consequences for the human microbiome. *Proceedings of the National Academy of Sciences*, 118(6), e2010217118. <https://doi.org/10.1073/pnas.2010217118>

- Ghai, S. (2020). Are dental schools adequately preparing dental students to face outbreaks of infectious diseases such as COVID-19?. *Journal of dental education*, 84(6), 631-633. <https://doi.org/10.1002/jdd.12174>
- Glowicz, J. B., Landon, E., Sickbert-Bennett, E. E., Aiello, A. E., Dekay, K., Hoffmann, K. K., ... & Ellingson, K. D. (2023). SHEA/IDSA/APIC practice recommendation: strategies to prevent healthcare-associated infections through hand hygiene: 2022 Update. *Infection Control & Hospital Epidemiology*, 44(3), 355-376. <https://doi.org/10.1017/ice.2022.304>
- Guntur, M. (2021). Al-Quran Teach the Importance of Taking Care of Health Physical: Tafseer Surat Al-Baqarah. *AKADEMIK: Jurnal Mahasiswa Humanis*, 1(2), 50-58. <https://doi.org/10.37481/jmh.v1i2.228>
- Hatabu, A., Mao, X., Zhou, Y., Kawashita, N., Wen, Z., Ueda, M., ... & Tian, Y. S. (2020). Knowledge, attitudes, and practices toward COVID-19 among university students in Japan and associated factors: An online cross-sectional survey. *PloS one*, 15(12), e0244350. <https://doi.org/10.1371/journal.pone.0244350>
- Hussam, R., Rabbani, A., Reggiani, G., & Rigol, N. (2022). Rational habit formation: experimental evidence from handwashing in India. *American Economic Journal: Applied Economics*, 14(1), 1-41. <https://doi.org/10.1257/app.20190568>
- Ijaz, M. K., Nims, R. W., de Szalay, S., & Rubino, J. R. (2021). Soap, water, and severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2): an ancient handwashing strategy for preventing dissemination of a novel virus. *PeerJ*, 9, e12041. <https://doi.org/10.7717/peerj.12041>
- Khorram-Manesh, A., Goniewicz, K., & Burkle Jr, F. M. (2024). Unleashing the global potential of public health: a framework for future pandemic response. *Journal of Infection and Public Health*, 17(1), 82-95. <https://doi.org/10.1016/j.jiph.2023.10.038>
- Montero-Vilchez, T., Martinez-Lopez, A., Cuenca-Barrales, C., Quiñones-Vico, M. I., Sierra-Sanchez, A., Molina-Leyva, A., ... & Arias-Santiago, S. (2022). Assessment of hand hygiene strategies on skin barrier function during COVID-19 pandemic: A randomized clinical trial. *Contact dermatitis*, 86(4), 276-285. <https://doi.org/10.1111/cod.14034>
- Muellmann, S., Brand, T., Jürgens, D., Gansefort, D., & Zeeb, H. (2021). How many key informants are enough? Analysing the validity of the community readiness assessment. *BMC research notes*, 14, 1-6. <https://doi.org/10.1186/s13104-021-05497-9>
- Nicolaidis, C., Avraam, D., Cueto-Felgueroso, L., González, M. C., & Juanes, R. (2020). Hand-hygiene mitigation strategies against global disease spreading through the air transportation network. *Risk Analysis*, 40(4), 723-740. <https://doi.org/10.1111/risa.13438>
- Park, J. S., O'Brien, J., Cai, C. J., Morris, M. R., Liang, P., & Bernstein, M. S. (2023, October). Generative agents: Interactive simulacra of human behavior. In *Proceedings of the 36th annual acm symposium on user interface software and technology* (pp. 1-22). <https://doi.org/10.1145/3586183.3606763>
- Przekwas, A., & Chen, Z. (2020). Washing hands and the face may reduce COVID-19 infection. *Medical hypotheses*, 144, 110261. <https://doi.org/10.1016/j.mehy.2020.110261>
- Raziq, M. A., Khan, N., & Maroof, M. M. (2024). Teachings and Instructions of Islam about Cleanliness and Hygiene in the Light of Quran and Hadiths. *Annals of Human and Social Sciences*, 5(3), 515-522. [https://doi.org/10.35484/ahss.2024\(5-III\)45](https://doi.org/10.35484/ahss.2024(5-III)45)
- Rudnicka, E., Napierała, P., Podfigurna, A., Męczekalski, B., Smolarczyk, R., & Grymowicz, M. (2020). The World Health Organization (WHO) approach to healthy ageing. *Maturitas*, 139, 6-11. <https://doi.org/10.1016/j.maturitas.2020.05.018>

- Samrah, A. T., Azis, M., Jusuf, E., Akbar, Z., Suharyanto, A., Tahir, S. Z. B., & Nasution, J. (2021, April). Analysis of the Behavior of Clean and Healthy Living Communities. In *Proceedings of the International Conference on Industrial Engineering and Operations Management Sao Paulo, Brazil*.
- Sari, B. Y., Sari, P., & Ningsih, V. R. (2024). Factors Related to Behavior Handwashing Habits With Soap (CTPS) in Students of SD Negeri Kec. Alam Barajo Jambi City in 2024. *Formosa Journal of Multidisciplinary Research*, 3(5), 1605-1616. <https://doi.org/10.55927/fjmr.v3i5.9217>
- Simandjuntak, D. (2021). Disciplining the accepted and amputating the deviants: Religious nationalism and segregated citizenship in Indonesia. *Asian Journal of Law and Society*, 8(1), 88-107. <https://doi.org/10.1017/als.2020.49>
- Solarino, A. M., & Aguinis, H. (2021). Challenges and best-practice recommendations for designing and conducting interviews with elite informants. *Journal of Management Studies*, 58(3), 649-672. <https://doi.org/10.1111/joms.12620>
- Teasing, G. R., Erasmus, V., Petrignani, M., Koopmans, M. P., de Graaf, M., Vos, M. C., ... & Voeten, H. A. (2020). Improving hand hygiene compliance in nursing homes: protocol for a cluster randomized controlled trial (HANDSOME Study). *JMIR research protocols*, 9(5), e17419.
- Wiharto, M., Mahadewi, E. P., Maratis, J., & Firmansyah, A. (2023). Disease Transmission Prevention Management Of Washing Hands With Soap For Students: Case Study At The University Of Jakarta, Indonesia. *International Journal of Science, Technology & Management*, 4(5), 1294-1300. <https://doi.org/10.46729/ijstm.v4i5.849>